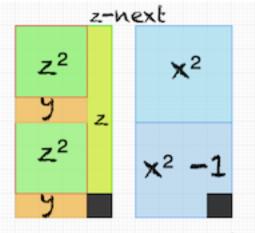
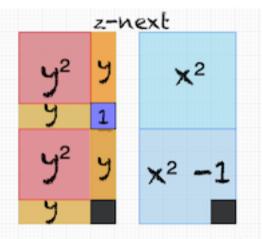
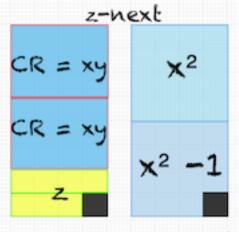
## The simple Geometry of forming the "next" z

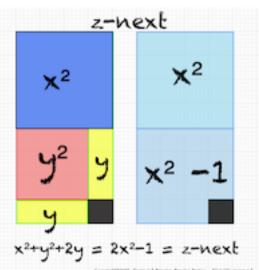


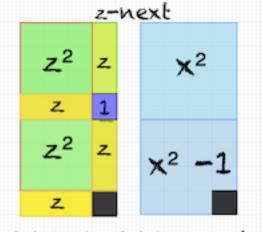
2z2+2y+z = 2x2-1 = z-next ATAMPS-previous



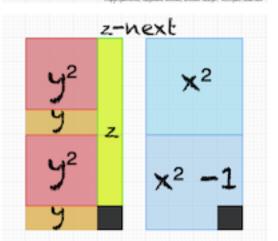
2y2+4y+1 = 2x2-1 = z-next



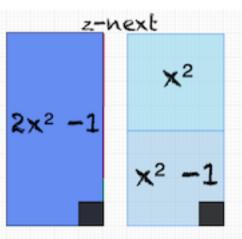




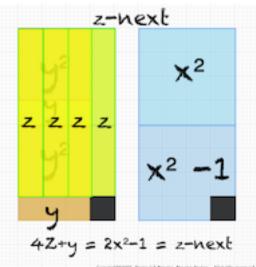
2z2+4z+1 = 2x2-1 = z-next 2"2MPS-previous, 22previous-2



2y2+2y+z = 2x2-1 = z-next

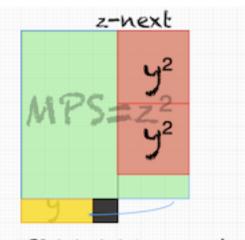


 $2x^2 - 1 = 2x^2 - 1 = z - next$ 

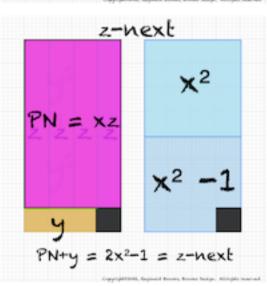


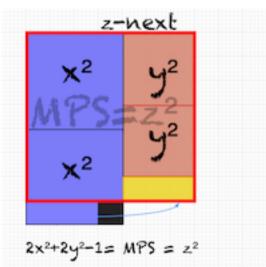
z-next Z<sup>2</sup>  $\mathbf{X}^2$ y 4 1 z² ч  $x^2 - 1$ 

222+4y+1 = 2x2-1 = z-next



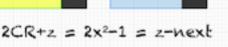
MPS-2y2= 2x2-1 = z-next

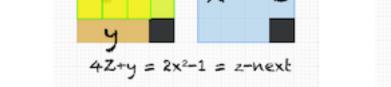




 $Mp^2$  = Mersenne Prime Square =  $MPS = z^2$ OC = ODD Complement rectangle to PN = yz $x^2$  = Perfect Number Square







Mp = Mersenne Prime =  $z = 2^{p} - 1 = x + y$ PN = Perfect Number = xz $x = 2^{p-1}$  = short side of PN rectangle y = x-1 = short side of OC rectangle  $Mp^2 = PN + OC = xz + yz = z^2$ CR = Complement Rectangle = xy $2^{n}$  = exponential power of 2, where n = 1,2,3,..., e.i.  $2^{n}$  = 1–2–4–8–16...  $\Sigma$  of  $2^{n}$  = 1–3–7–15–31–..., the difference ( $\Delta$ ) = 2–4–8–16–...